



Amendments to the Claims

The listing of claims will replace all prior versions and listings of claims in the application.

1-2. (Cancelled)

3. (Currently amended) An isolated nucleic acid comprising the sequence of ~~selected from the group consisting of SEQ ID NO: 3, SEQ ID NO: 7, SEQ ID NO: 11, SEQ ID NO: 15, SEQ ID NO: 19, SEQ ID NO: 23, SEQ ID NO: 27, SEQ ID NO: 31, SEQ ID NO: 35, SEQ ID NO: 39, SEQ ID NO: 43, SEQ ID NO: 47, SEQ ID NO: 51, SEQ ID NO: 55, SEQ ID NO: 59, SEQ ID NO: 63, SEQ ID NO: 67, SEQ ID NO: 71, SEQ ID NO: 75, SEQ ID NO: 79, SEQ ID NO: 83, SEQ ID NO: 87, SEQ ID NO: 91, SEQ ID NO: 95, SEQ ID NO: 99, SEQ ID NO: 103, SEQ ID NO: 107, SEQ ID NO: 111, SEQ ID NO: 115, SEQ ID NO: 119, SEQ ID NO: 123, SEQ ID NO: 127, SEQ ID NO: 131, SEQ ID NO: 135, SEQ ID NO: 139, SEQ ID NO: 143, SEQ ID NO: 147, SEQ ID NO: 151, SEQ ID NO: 155, SEQ ID NO: 159, SEQ ID NO: 163, SEQ ID NO: 167, SEQ ID NO: 171, SEQ ID NO: 175, SEQ ID NO: 179, SEQ ID NO: 183, SEQ ID NO: 187, SEQ ID NO: 191, SEQ ID NO: 195, SEQ ID NO: 199, SEQ ID NO: 203, SEQ ID NO: 207, SEQ ID NO: 211, SEQ ID NO: 215, SEQ ID NO: 219, SEQ ID NO: 223, SEQ ID NO: 227, SEQ ID NO: 231, SEQ ID NO: 235, SEQ ID NO: 239, SEQ ID NO: 243, SEQ ID NO: 247, SEQ ID NO: 251, SEQ ID NO: 255, SEQ ID NO: 259, SEQ ID NO: 263, SEQ ID NO: 267, SEQ ID NO: 271, SEQ ID NO: 275, SEQ ID NO: 279 and ID NO: 283.~~

4-46. (Cancelled)

47. (New) An isolated polynucleotide comprising a nucleic acid sequence at least 95% identical to the sequence of SEQ ID NO 115.

48. (New) An isolated polynucleotide comprising a nucleic acid sequence at least 90% identical to SEQ ID NO 115.

49. (New) An isolated polynucleotide comprising a nucleic acid sequence at least 85% identical to SEQ ID NO 115.
50. (New) An isolated polynucleotide comprising a nucleic acid sequence at least 83% identical to SEQ ID NO 115.
51. (New) A recombinant vector comprising the nucleic acid of claim 3.
52. (New) A recombinant vector comprising the nucleic acid of claim 3 operatively associated with a regulatory sequence that controls gene expression.
53. (New) A genetically engineered host cell comprising the vector of claim 52.
54. (New) A method for producing a polypeptide, comprising:
 - (a) culturing the genetically engineered host cell of claim 53 under conditions suitable to produce the polypeptide; and
 - (b) recovering the polypeptide from the cell culture.
55. (New) A recombinant vector comprising the polynucleotide of claim 47.
56. (New) A recombinant vector comprising the polynucleotide of claim 47 operatively associated with a regulatory sequence that controls gene expression.
57. (New) A genetically engineered host cell comprising the vector of claim 56.
58. (New) A method for producing a polypeptide, comprising:
 - (a) culturing the genetically engineered host cell of claim 57 under conditions suitable to produce the polypeptide; and
 - (b) recovering the polypeptide from the cell culture.
59. (New) A recombinant vector comprising the polynucleotide of claim 48.

- 60. (New) A recombinant vector comprising the polynucleotide of claim 48 operatively associated with a regulatory sequence that controls gene expression.
- 61. (New) A genetically engineered host cell comprising the vector of claim 60.
- 62. (New) A method for producing a polypeptide, comprising:
 - (a) culturing the genetically engineered host cell of claim 61 under conditions suitable to produce the polypeptide; and
 - (b) recovering the polypeptide from the cell culture.
- 63. (New) A recombinant vector comprising the polynucleotide of claim 49.
- 64. (New) A recombinant vector comprising the polynucleotide of claim 49 operatively associated with a regulatory sequence that controls gene expression.
- 65. (New) A genetically engineered host cell comprising the vector of claim 64.
- 66. (New) A method for producing a polypeptide, comprising:
 - (a) culturing the genetically engineered host cell of claim 65 under conditions suitable to produce the polypeptide; and
 - (b) recovering the polypeptide from the cell culture.
- 67. (New) A recombinant vector comprising the polynucleotide of claim 50.
- 68. (New) A recombinant vector comprising the polynucleotide of claim 50 operatively associated with a regulatory sequence that controls gene expression.
- 69. (New) A genetically engineered host cell comprising the vector of claim 68.
- 70. (New) A method for producing a polypeptide, comprising:

- (a) culturing the genetically engineered host cell of claim 69 under conditions suitable to produce the polypeptide; and
- (b) recovering the polypeptide from the cell culture.